Nakamichi

PA-7II/PA-5II

Power Amplifier

Owner's Manual
Bedienungsanleitung
Mode d'emploi

This Owner's Manual covers the following models:
Diese Bedienungsanleitung gilt für die folgenden Modelle:
Ce mode d'emploi couvre les modèles suivants:

PA-7II PA-7AII PA-7EII
PA-5II PA-5AII PA-5EII

Owner's Manual Supplement for PA-7EII/PA-5EII
Beilageblatt zur Bedienungsanleitung des PA-7EII/PA-5EII
Supplément du manuel du propriétaire pour PA-7EII/PA-5EII

Nakamichi

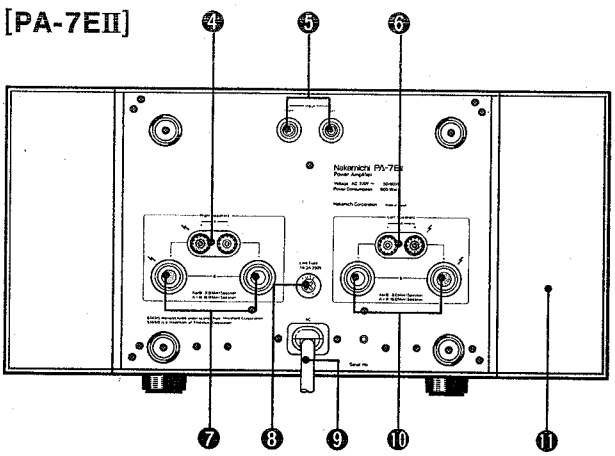
This unit has two types of speaker terminals on the rear panel, which are designed to accept various kinds of speaker cable.
The rear panel description and the procedure for connecting loudspeakers is therefore slightly defferent from the contents of the Owner's Manual. **Please follow the instrucitons in this supplement regarding these points.** All other items are exactly as described in the Owner's Manual.

Diese Geräteausführung besitzt zwei unterschiedliche Sets von Lautsprecheranschlüssen auf der Rückseite, die für verschiedene Lautsprecherkabel geeingnet sind.
Die Beschreibung der Geräterückseite und die Anleitung zum Lautsprecheranschluß unterscheidet sich daher etwas von der Bedienungsanleitung. **Beachten Sie hierzu bitte die Hinweise in diesem Beilageblatt.** Alle anderen Punkte sind genau wie in der Bedienungsanleitung beschrieben.

Cette unité présente deux types de bornes de haut-parleur sur le panneau arrière, lesquels sont conçus pour accepter divers types de câble de haut-parleur.
La description du panneau arrière et la procédure pour brancher les haut-parleurs sont par conséquent légèrement différentes du contenu du Manuel du Propriétaire. **Nous vous prions donc de suivre les instructions de ce supplément en çe qui concerne ces points.** Tous les autres items sont comme décrits exactement dans le Manuel du Propriétaire.

Controls and Features (Rear Panel)

[PA-7EII]



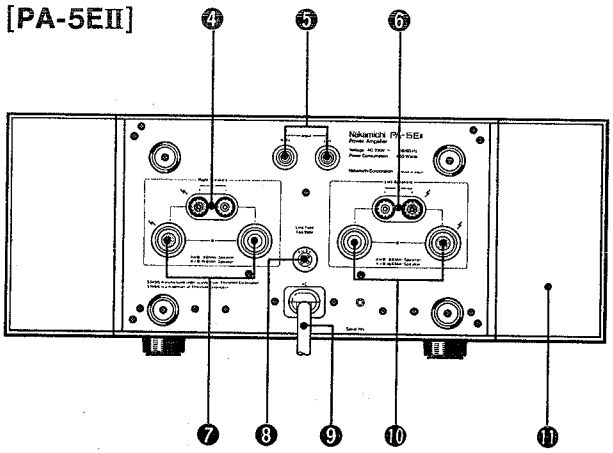
❹ Right-Channel Speaker Terminals A
❺ Input Terminals (L, R)
❻ Left-Channel Speaker Terminals A
❼ Right-Channel Speaker Terminals B
❽ AC Line Fuse
❾ Power Cord
❿ Left-Channel Speaker Terminals B
⓫ Heatsink

Gerätebeschreibung (Rückseite)

❹ Lautsprecheranschlüsse A für rechten Kanal
❺ Eingangsbuchsen (L, R)
❻ Lautsprecheranschlüsse A für linken Kanal
❼ Lautsprecheranschlüsse B für rechten Kanal
❽ Netzstrom-Sicherung
❾ Netzkabel
❿ Lautsprecheranschlüsse B für linken Kanal
⓫ Kühlkörper

Commandes et particularités (panneau arrière)

[PA-5EII]



❹ Bornes de haut-parleurs A de canal de droite
❺ Bornes d'entrée (G, D)
❻ Bornes de haut-parleurs A de canal de gauche
❼ Bornes de haut-parleurs B de canal de droite
❽ Fusible de Prise de Courant
❾ Cordon d'alimentation
❿ Bornes de haut-parleurs B de canal de gauche
⓫ Refroidisseur

Connections

- While making connections, be sure to set the power switches of this unit and all other components to "OFF"

■ Speaker Connections

Connect the left-side loudspeaker to the left-channel speaker terminals and the right-side loudspeaker to the right-channel speaker terminals of this unit, taking care to observe correct (+) and (−) polarity. If the polarity of one speaker is reversed, the speakers will be out of phase, causing a loss in bass response and unstable, irregular stereo imaging. Double-check to make sure that both speakers have the same polarity.
This unit provides two types of speaker termi-

Anschlüsse

- Achten Sie darauf, daß die Netzschalter aller Geräte ausgeschaltet sind, während Sie die Verbindungen vornehmen.

■ Lautsprecheranschlüsse

Verbinden Sie den linken Lautsprecher mit den Lautsprecherklemmen für den linken Kanal und den rechten Lautsprecher mit den Lautsprecherklemmen für den rechten Kanal auf der Geräterückseite. Achten Sie dabei unbedingt auf korrekte (+) und (−) Polarität. Wenn die Polarität eines Lautsprechers vertauscht ist, sind die Lautsprecher night in Phase, was zu beeinträchtigter Baßwiedergabe und unsauberem, verschwommenem Stereo-Klangbild führt. Führen

Branchements

- Tout en exécutant les branchements, veiller à bien régler les commutateurs d'alimentation de cette unité et les autres composants sur "OFF" (arrêt).

■ Branchements des haut-parleurs

Brancher le haut-parleurs côté gauche aux bornes de haut-parleur du canal de gauche et le haut-parleur côté droit aux bornes de haut-parleur du canal de droite de cette unité, en faisant attention à respecter la polarité correcte (+) et (−). Si la polarité d'un haut-parleur est inversée, les haut-parleurs seront hors de phase, ceci causant une perte de la réponce des basses et une image stéréo irrégulière et instable. Contrôler deux fois pour s'assurer que les deux haut-

nals. Choose the terminal which is best suited for the speaker cable you intend to use.

Speaker Terminals A
These terminals are suitable for use with speaker cables having Y-shaped lugs or other special connector tips (refer to Fig. 1).

Speaker Terminals B
These terminals are suitable for use with very heavy gauge speaker cables (up to a diameter of 6 mm) (refer to Fig. 2).

- By using both sets of speaker terminals together, bi-wiring (connecting mid/high range drivers and low range drivers to the amplifier with separate cable) is possible.
- The amplifier does not provide a facility for switching between speaker terminals A and B. The same signal is always supplied at both sets of terminals. **If two different sets of loudspeakers are connected in parallel, take care not to drive them to excessive volume levels.**
- It is recommended that you use high-quality, heavy-gauge speaker cable with low resistance, designed specially for audio applications. Using thin cable with high resistance may impair sound quality and prevent the amplifier from delivering its full potential.
- The speaker cables for both channels should be approximately equal in length, as a marked difference can result in improper left/right balance.

Sie nach beendetem Anschluß nochmals eine Überprüfung durch, um ganz ganz sicher zu gehan, daß die Polarität beider Lautsprecher übereinstimmt.
Dieses Gerät besitzt zwei Sets von Lautsprecheranschlüssen. Wählen Sie den für das verwendete Lautsprecherkabel am besten geeigneten Klemmentyp aus.

Lautsprecheranschlüsse A
Diese Klemmen eignen sich für Kabel, die mit Kabelschuhen oder anderen speziellen Anschlußvorrichtungen versehen sind (siehe Abb. 1).

Lautsprecheranschlüsse B
Diese Klemmen eignen sich für Kabel mit besonders großem Querschnitt (bis 6 mm) (siehe Abb. 2).

- Durch Verwendung beider Anschlüsse zusammen können Mittel/Hochton-Einheiten und Tieftöner bei dafür vorgesehenen Lautsprechern durch separate Kabel mit der Endstufe verbunden werden.
- Es ist nicht möglich, zwischen den beiden Anschlüssen A und B umzuschalten. Das gleiche Ausgangssignal liegt immer an beiden Anschlüseen. **Wenn zwei Lautsprecherpaare parallel angeschlossen werden, sollte darauf geachtet werden, die Lautstärke nicht übermäßig zu erhöhen.**
- Es ist empfehlenswert, hochwertiges Lautsprecherkabel von großem Querschnitt und geringem Widerstandswert zu verwenden. Bei Gebrauch von dünnem Kabel mit hohem Widerstand kann die Klangqualität beeinträchtigt werden und die Endstufe wird u.U. nicht ihre volle Leistung erbringen.
- Die Länge der Lautsprecherkabel sollte für beide Kanäle etwa gleich sein, da ein größerer Unterschied die Links/Rechts-Balance beeinträchtigen kann.

parleurs présentent la même polarité.
Cette unité présente deux types de bornes de haut-parleur. Sélectionner la borne qui est plus appropriée au câble de haut-parleur devant être utilisé.

Bornes de haut-parleur A
Ces bornes sont appropriées à l'usage avec des câbles de haut-parleurs ayant des cosses de forme "Y" ou autres extrémités de connecteur spécial (se référer à la Fig. 1).

Bornes de haut-parleur B
Ces bornes sont appropriées à l'usage avec des câbles de haut-parleurs ayant un gros calibre (jusqu'à un diamètre de 6 mm) (se référer à la Fig. 2).

- En utilisant deux jeux de bornes de haut-parleur ensemble, le câblage double (connexion de drivers de plage moyenne/élevée et drivers de plage basse à l'amplificateur avec câble séparé) est possible.
- L'amplificateur ne fournit pas de possibilité de commutation entre les bornes A et B de haut-parleur. Le même signal est toujours fourni au deux jeux de bornes. **Si deux jeux différents de haut-parleurs sont connectés en parallèle, faire attention à ne pas les commander à des niveaux de volume excessifs.**
- Il est recommandé d'utiliser un câble de gros calibre et de haute qualité avec basse résistance conçu spécialement pour des applications audio. L'utilisation d'un câble mince avec haute résistance peut détériorer la qualité du son et empêcher l'amplificateur de donner son maximum.
- Les câbles de haut-parleurs pour les deux canaux devraient avoir approximativement une même longueur, car une différence remarquable pourrait résulter d'un équilibre droite/gauche incorrect.

Speaker Connection Example
Beispiel für Lautsprecherkabel-Anschluß
Exemple de branchement de haut-parleurs

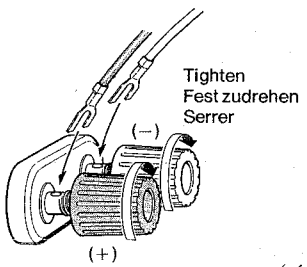


Fig. 1
Abb. 1
Fig. 1

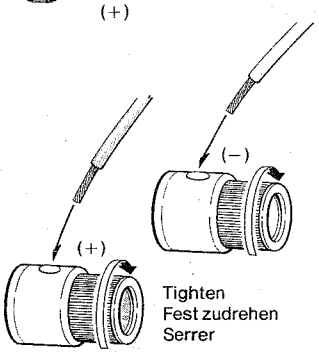
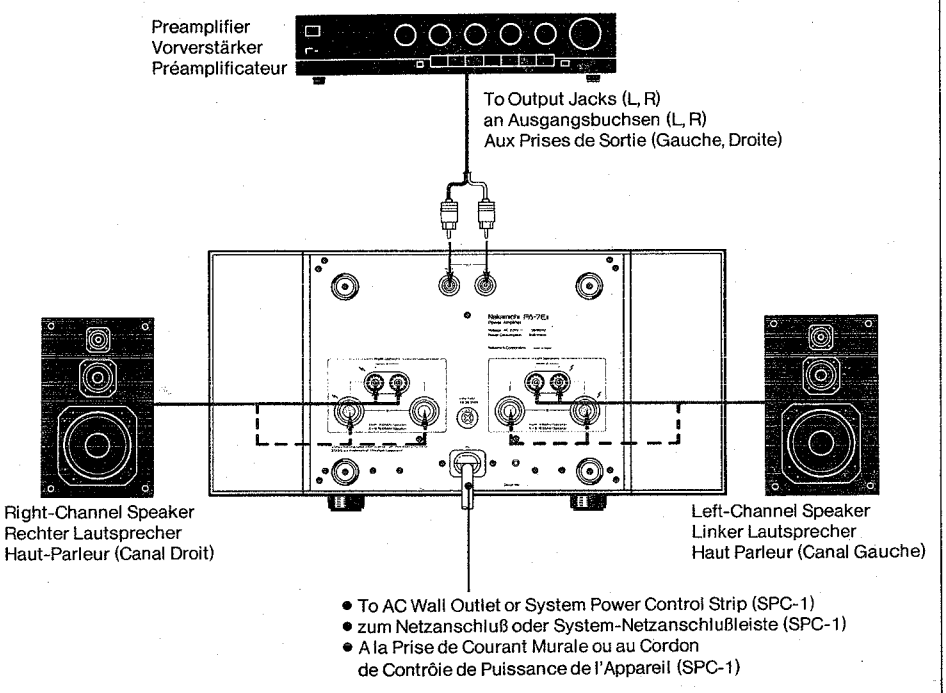
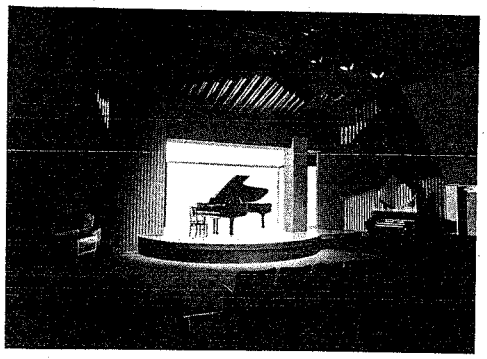


Fig. 2
Abb. 2
Fig. 2


Preamplifier
Vorverstärker
Préamplificateur
To Output Jacks (L, R)
an Ausgangsbuchsen (L, R)
Aux Prises de Sortie (Gauche, Droite)
Right-Channel Speaker
Rechter Lautsprecher
Haut-Parleur (Canal Droit)
Left-Channel Speaker
Linker Lautsprecher
Haut Parleur (Canal Gauche)
• To AC Wall Outlet or System Power Control Strip (SPC-1)
• zum Netzanschluß oder System-Netzanschlußleiste (SPC-1)
• A la Prise de Courant Murale ou au Cordon de Contrôle de Puissance de l'Appareil (SPC-1)

0D04893A

0-880905A Printed in Japan



English *from page 4* **Deutsch** *von Seite 10* **Français** *voir page 15*

Congratulations!
You have chosen a truly exceptional product. All Nakamichi audio components are created according to a simple but highly demanding philosophy: perfectly natural reproduction of the musical experience, without the slightest trace of coloration. Even the ambience of the stage and the heartbeat of the performers can be felt when hearing music reproduced the Nakamichi way. This is what has earned our products a dedicated following among discerning audio enthusiasts, music lovers and musicians the world over.

The Nakamichi power amplifiers PA-7II/PA-5II are based on the highly esteemed models PA-7/PA-5. All aspects of these very successful amplifiers, such as component parts, circuit design, and even chassis construction were thoroughly reevaluated, with the aim of achieving even higher overall performance. Through these efforts, the enormous potential of the revolutionary STASIS topology has been brought out to the fullest, resulting in a new reference for sonic excellency.
Great care was taken to improve the "original" performance characteristics of the output stage and STASIS circuitry before any feedback. High output power combined with high current capability, plus the STASIS philosophy which eliminates the need for global feedback, ensure dramatically improved speaker drive capability under real-life conditions. All parts of the amply dimensioned power supply such as power transformer, filter capacitors, and wiring material are newly developed and of the highest quality. Other highlights are the sophisticated voltage amplification stage and a highly rigid chassis built with full mastery of latest technology. Dynamic impact, minimum distortion and extraordinarily wide frequency range are immediately apparent when auditioning these amplifier masterpieces.

In order to take full advantage of this unit's superior performance, please read this manual in its entirety and retain it for future reference.

Thank you.
Nakamichi Corporation

Lieber Stereofreund!
Sie haben sich für ein in jeder Hinsicht hervorragendes Gerät entschieden. Alle Audio-Komponenten von Nakamichi folgen einem ebenso einfachen wie strikten Motto: absolut natürliche Musikwiedergabe, ohne jeden Anflug von Verfärbungen. Musik hören mit Nakamichi ist ein Erlebnis, das selbst die Raumdimension und die elektrisierende Atmosphäre auf der Bühne mit einschließt. Nicht umsonst genießt der Name Nakamichi bei Musikfreunden, HiFi-Liebhabern und Musikern auf der ganzen Welt einen so guten Ruf.

Die Nakamichi-Endstufen PA-7II/PA-5II sind Weiterentwickungen der erfolgreichen Modelle PA-7/PA-5. Sämtliche Aspekte, von Bauteilen über den Schaltungsaufbau bis hin zum Chassis wurden nochmals von Grund auf überarbeitet, mit dem Ziel, die bereits hervorragende Leistung der Vorgängermodelle auf eine noch höhere Ebene zu stellen. Die revolutionäre STASIS-Technik kommt in diesen Stereo-Endstufen, die den Begriff der Referenzqualität neu definieren, zu völliger Entfaltung.
Ein wichtiges Ziel war die Verzerrungsfreiheit von Ausgangsstufe und STASIS-Schaltung bereits ohne Gegenkopplung. Hohe Ausgangsleistung und hohe Stromkapazität, zusammen mit dem STASIS-Konzept, das globale Gegenkopplung überflüssig macht, garantieren absolut präziso Lautsprecheransteuererung im tatsächlichen Einsatz, selbst unter ungünstigen Bedingungen. Als Transformator, Kondensatoren und Verdrahtungsmaterial des kräftigen Netzteils kommen nur hochwertige, neuentwickelte Komponenten zur Anwendung. Die technisch ausgereifte Spannungsverstärkerstufe und sin verwindungsfreies Chassis neuester Bauart sind weitere Beispiele für den hohen Qualitätsstand dieser Endstufen. Enorme Dynamik, geringste Verzerrungen und breiter Übertragungsbereich sind klagliche Vorzüge, die auf Anhieb hörbar werden.

Um die vorzügliche Leistung dieses Geräts voll zu nutzen, raten wir Ihnen, die Bedienungsanleitung vor Inbetriebnahme genau durchzulesen und für späteres Nachschlagen gut aufzubewahren.

Vielen Dank.
Nakamichi Corporation

Cher Client
Vous venez d'acquérir un produit réellement exceptionnel. Tous les éléments des chaînes Nakamichi sont conçus selon un principe simple mais des plus exigeants, à savoir: une reproduction parfaitement naturelle, exempte de la moindre coloration. Quand une musique est reproduite par Nakamichi, c'est toute l'ambiance du plateau que l'on ressent, jusqu'aux battements de coeur des musiciens. De nous être tenus à ce principe nous a valu des adeptes fidèles parmi les audiophiles, les mélomanes et les musiciens du monde entier.

Les amplificateurs de puissance Nakamichi PA-7II/PA-5II sont basés sur les modèles très appréciés PA-7/PA-5. Tous les aspects de ces amplificateurs très réussis, tels que pièces composantes, conception du circuit, et même la construction du châssis, ont été réé valués à fond, avec comme but d'obtenir une performance totale supérieure. A travers ces efforts le potentiel énorme de la topologie STASIS révolutionnaire a è té développé au maximum, ceci résultant en une nouvelle référence pour la perfection sonore.
Une grande attention a été portée à l'amélioration des caractéristiques de performance "originale" de l'étage de sortie et du circuit STASIS avant toute rétroaction. La puissance de sortie élevée combinée à la capacité courante élevée, plus la philosophie STASIS qui permet d'éliminer la nécessité de tétroaction globale, permettent d'assurer dramatiquement l'amélioration de la capacité de commande de haut-parleurs en conditions proches de la réalité. Toutes les pièces de l'alimentation de dimensions suffisantes telles que transformateur de puissance, condensateurs de filtre et matériel de câblage ont été développées récemment et sont de qualité très élevée. D'autres caractéristiques sont l'étage d'amplification de tension sophistiquée et un châssis très rigide construit avec une très grande maîtrise de la technologie la plus récente. L'impact dynamique, une distorsion minimum et une plage de fréquence très é tendue sont évidents au moment de l'emploi de ces chefs-d'œuvre d'amplificateur.

Afin de profiter pleinement des performances supérieures de cet appareil, nous vous conseillons vivement de lire d'abord ce mode d'emploi d'un bout à l'autre et de le conserver pour pouvoir vous y référer plus tard.

Merci.
Nakamichi Corporation

The photo on this page shows the concert hall in the Nakamichi Research Institute. Here every component must prove itself, above and beyond technical specifications. This hall help us explore the realm of live music, which is the starting and end point in the development of all Nakamichi products.

Das Foto auf dieser Seite zeigt die Konzerthalle im Nakamichi-Forschungszentrum. Über die rein technische Seite hinaus gewinnen wir dort wichtige Impulse für unsere Arbeit Jedes Gerät muß hier beweisen, was in ihm steckt, und live erlebte Musik steht am Anfang und Ende aller Entwicklungsarbeit.

La photo ci-dessus est une vue de la salle de concert qui se trouve dans l'institut de recherches de Nakamichi. Cette salle sert à "mesurer" les sensations qui, par définition même, sont immensurables et se situent au-delà des spécifications techniques. C'est dans ce royaume de la musique vivante que commence et qu'aboutit la création de tous les produits Nakamichi.

CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions, in the literature accompanying the appliance.

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordane with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installaton. If this equipment does cause interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—reorient the receiving antenna
—relocate this equipment with respect to the receiver
—move this equipment away from the receiver
—plug this equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems".

This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

Nakamichi Corporation Certifies That This Equipment Conforms to DHHS Regulations No. 21 CFR, Chapter 1, Subchapter J.

Please record the Model Number and Serial Number in the space provided below and retain these numbers.

Model Number and Serial Number are located on the rear panel of the unit.

Model Number: PA-7II/PA-7AII/PA-7EII
PA-5II/PA-5AII/PA-5EII

Serial Number: _____

Nakamichi high-fidelity equipment is sold in more than 50 countries around the world. Many of these countries have strict safety regulations to which Nakamichi products must comply.

Models designated by an "A" have been produced for North America (USA and Canada) and comply with the requirements of Underwriters Laboratories (UL) and/or Canadian Standards Association (CSA) as well as with other applicable state/provincial and federal safety standards.

Models designated by an "E" have been produced for Europe and comply with the requirements of EEC Recommendation 82/499 as well as with other applicable European safety standards.

Models without an "A" or "E" have been produced for countries other than North America, Europe and Japan and comply with applicable safety standards.

Nakamichi has authorized its local distributors to offer warranties only on products which have been produced in accordance with the foregoing standards.

Safety Instructions

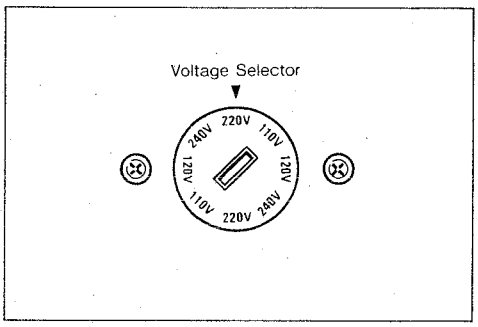
The following safety instructions have been included in compliance with safety standard regulations. Please read them carefully.

1. Read instructions—All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions—The safety and operating instructions should be retained for future reference.
3. Heed Warnings—Adhere to all warnings on the appliance and in the operating instructions.
4. Follow Instructions—All operating and use instructions should be followed.
5. Water and Moisture—The appliance should not be used near water—for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. Carts and Stands—The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

8. Wall or Ceiling Mounting—The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. Ventilation—The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
10. Heat—The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) which produce heat.
11. Power Sources—The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
12. Grounding or Polarization—Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
13. Power-Cord Protection—Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning—The appliance should be cleaned only as recommended by the manufacturer.
15. Nonuse Periods—The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. Object and Liquid Entry—Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. Damage Requiring Service—The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or,
    B. Objects have fallen, or liquid has been spilled into the appliance; or,
    C. The appliance has been exposed to rain; or,
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or,
    E. The appliance has been dropped, or the enclosure damaged.
18. Servicing—The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

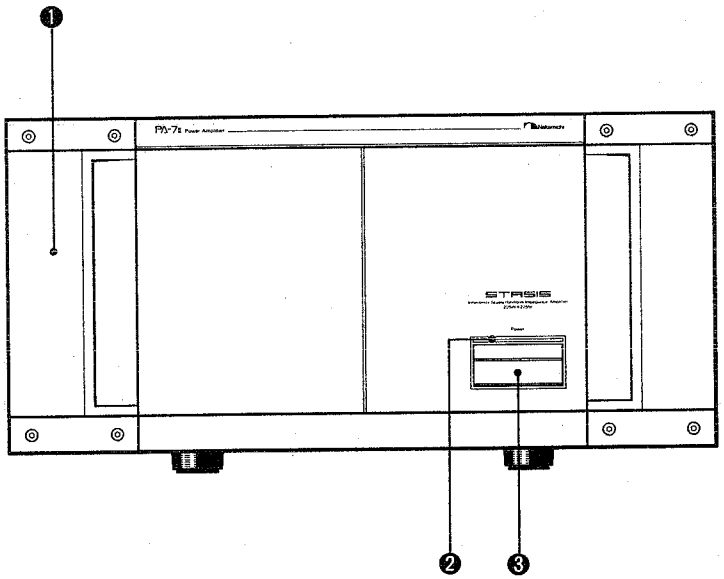
Precautions

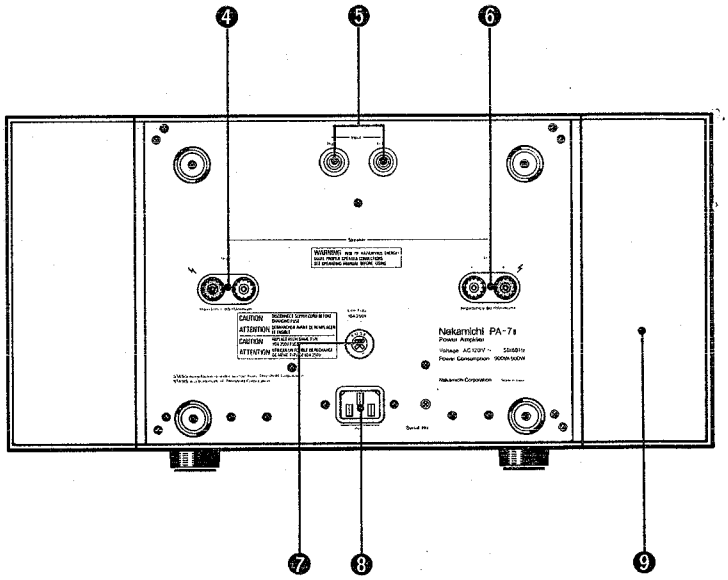
1. As the heatsinks of this amplifier can become quite warm during operation, sufficient clearance is required above the unit to permit smooth heat exchange.
   Closely spaced stacking of components should be avoided, as this impedes the air flow and can also lead to mutual interference problems.
2. This unit is of considerable weight. Always handle it with care during transport and install it only on a sturdy, well-supported surface.
3. Caring for the exterior panels of the unit should be limited to wiping with a soft, dry cloth. Avoid using solvents or alcohol-based cleaners.
4. **Voltage Selector (special equipment)**
   The voltage selector is provided only on the model PA-7II/PA-5II sold in certain areas, not on the models PA-7AII/PA-5AII and PA-7EII/PA-5EII.
   If the model you have purchased is the PA-7 II/PA-5II (with voltage selector on the rear panel), be sure to check that the setting of the selector matches the AC voltage used in your area.



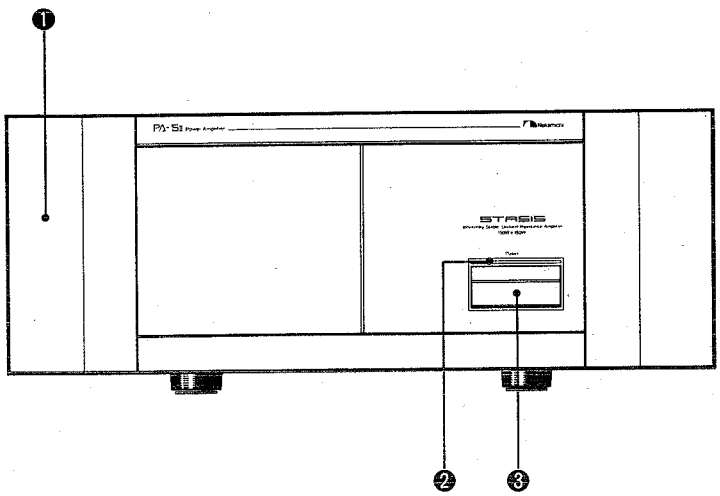
Controls and Features

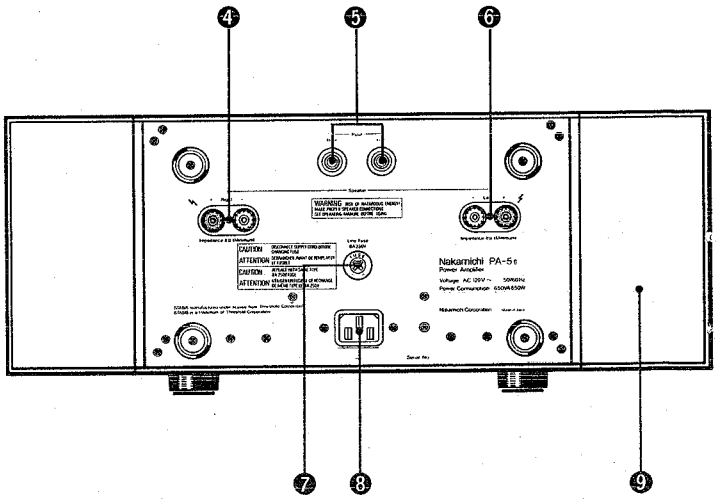
[PA-7II]





[PA-5II]





❶ Handle
❷ Power Indicator
❸ Power Switch
❹ Right-Channel Speaker Terminals
❺ Input Terminals (L, R)
❻ Left-Channel Speaker Terminals
❼ AC Line Fuse
❽ AC Power Connector
❾ Heatsink

AC Power Cord
Depending on safety regulations in the distribution area, the AC power cord may be permanently fixed to the rear of the unit.

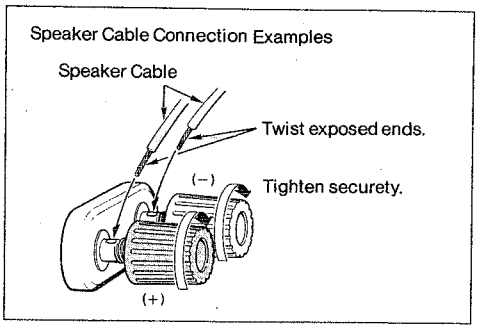
Connections

- While making connections, be sure to set the power switches of this unit and all other components to "OFF."

■ Speaker Connections

Connect the left-side loudspeaker to the left-channel speaker terminals and the right-side loudspeaker to the right-channel speaker terminals of this unit, taking care to observe correct (+) and (−) polarity. If the polarity of one speaker is reversed, the speakers will be out of phase, causing a loss in bass response and unstable, irregular stereo imaging. Double-check to make sure that both speakers have the same polarity.

- It is recommended that you use high-quality, heavy-gauge speaker cable with low resistance, designed specially for audio applications, Using thin cable with high resistance may impair sound quality and prevent the amplifier from delivering its full potential.
- The speaker cables for both channels should be approximately equal in length, as a marked difference can result in improper left/right balance.



■ Preamplifier (Control Amplifier) Connections

Connect the Input terminals (L, R) of this unit to the output jacks of the preamplifier, using shielded cables with RCA-type plugs.

■ Power Supply Connections

Confirm that this unit's Power switch is set to "Off". Then insert the supplied power cord into the AC Power connector on the rear panel of this unit and plug the other end into an AC wall outlet.

When a Nakamichi control amplifier (such as the CA-7/CA-5II) is used, the optional System Power Control strip (SPC-1) can be employed to supply AC power to the PA-7II/PA-5II in conjunction with the power switch of the control amplifier.

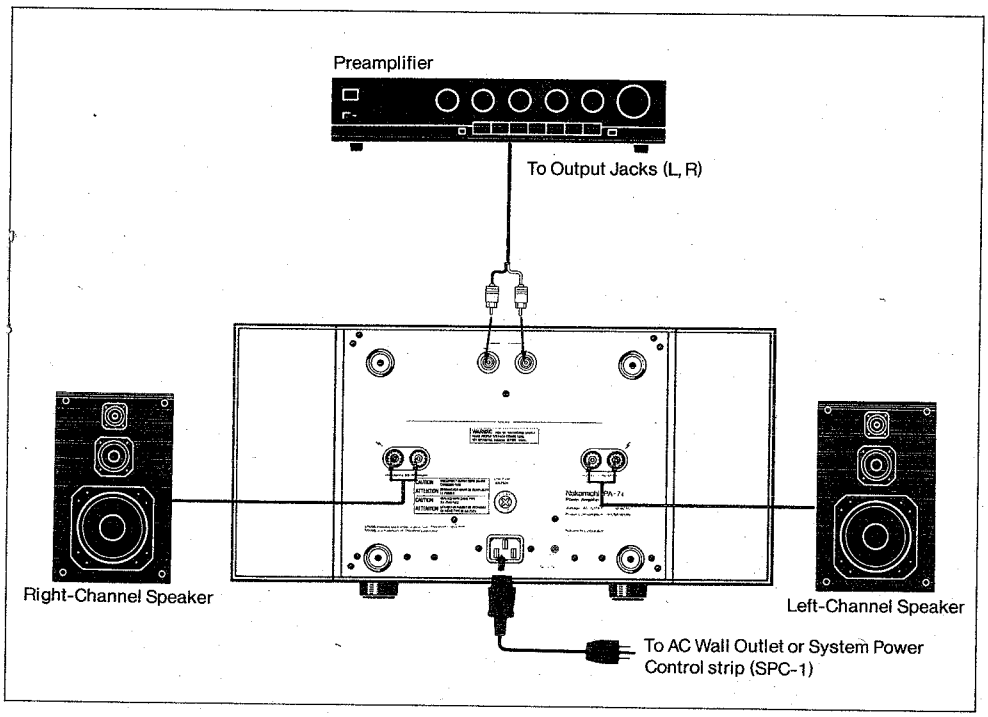
- After all system connections are completed, first switch on the preamplifier (with volume control turned fully to minimum), and then set the Power switch of this unit to "On".

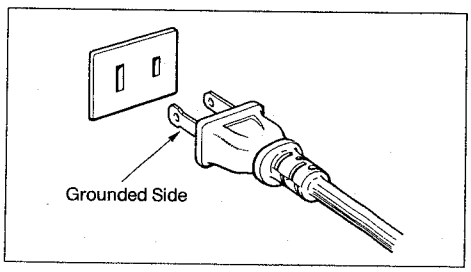
Models With Fixed Power Cord

To meet the safety regulations in the distribution area, the power cord of some models is permanently fixed to the rear of the unit. Therefore the power supply connection can be established by simply plugging the other end of the cord into an AC wall outlet (or into the optional SPC-1, when using the PA-7II/PA-5II together with the CA-7/CA-5II).

Canadian Model

The plug of this unit's AC power cord is polarity coded. The plug should be inserted into a wall outlet so that the prong with the wide tip enters the longer slot, which is the grounded side of the outlet.


Preamplifier
To Output Jacks (L, R)
Right-Channel Speaker
Left-Channel Speaker
To AC Wall Outlet or System Power Control strip (SPC-1)



CAUTION:
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Protection Features

Protection Circuits

To guard against possible damage to the amplifier and connected equipment, this unit incorporates separate circuits for the left and right channel which constantly monitor operating conditions. If the internal temperature exceeds 75°C, if the unit was driven to excessive levels or if DC current has leaked into the output, relays cut off the output in one or both channels. As the power supply is not deactivated in this condition, the Power indicator remains lit. When regular conditions are restored, the amplifier automatically reverts to normal operation.

The above mentioned cases may result from unsuitable connections, improper installation (restricted air flow prevents heat exchange), or abnormal use (such as driving very low-impedance speakers at high levels for an extended period).

If the protection circuits are activated frequently, first turn down the volume control of the preamplifier, then switch off the power to all components and check connections and installation conditions. If these checks reveal no particular problem, but the protection circuit is activated again after the amplifier was switched on, contact an authorized service station.

Fuse Protection

An AC line fuse socket is located on the rear panel of this unit. If a short-circuit or the like occurs inside the unit, this fuse will blow, causing the Power indicator on the front panel to go out. In such a case, set the Power switch to "Off" and unplug the power cord from the AC outlet.

Then replace the fuse with the supplied spare fuse.

After replacing the fuse, check other components and connector cables for possible problems. Then switch on the power amplifier. If the fuse blows again, contact an authorized service station.

- This unit employs a fuse specially selected to complement the high sound quality and performance of the amplifier. Be sure to replace it only with the supplied spare fuse. If a new fuse is needed, purchase it from an authorized Nakamichi service station.

Turn-On Protection

A so-called inrush current limiter circuit serves to minimize the turn-on surge drawn from the power line when the amplifier is switched on, thereby protecting the internal circuits as well as the house circuit breaker.

The output of the unit remains muted for a short period (approximately 5 seconds) after turn-on, until all internal circuits have stabilize.

> During the muting interval and when the protection circuitry has been activated, the red LED (one for each channel) on the PCB inside the amplifier lights up. In normal operation, the LEDs are out.

Troubleshooting

Condition	Probable Cause	Remedy
No power.	1. Power cord not plugged properly into AC Power connector of this unit or AC wall outlet. 2. AC line fuse has blown.	1. Plug in power cord firmly. 2. Replace with supplied spare fuse or contact an authorized service station.
No sound.	3. Faulty connections of RCA-type plugs and shielded cables, or speaker cables. 4. Protection circuits are activated. 5. Preamplifer problem (improper connections or operation).	3. Check connections. 4. Refer to paragraph "Protection Features". 5. Refer to Owner's Manual of preamplifier.
Left/Right channels reversed, no sound from one channel.	6. Faulty connections of RCA-type plugs and shielded cables, or speaker cables. 7. Balance control of preamplifier turned fully to one side. 8. Protection circuit of one channel activated.	6. Check connections. 7. Adjust Balance control. 8. Refer to paragraph "Protection Features".
Bass response deficient, unstable stereo imaging.	9. Speaker cable connected with reversed (+) (−) polarity in one channel.	9. Connect speaker cable correctly.
Hum noise is heard.	10. Faulty or incomplete connection of RCA-type plugs. 11. TV set operates in close proximity of amplifier.	10. Insert plugs firmly. 11. Increase the distance between TV set and amplifier.

Specifications

	PA-7II	PA-5II
Continuous Average Power Output (NEW IHF)	225W × 2 (8 ohms, both channels driven, 20—20,000 Hz, 0.05% THD)	150W × 2 (8 ohms, both channels driven, 20—20,000 Hz, 0.05% THD)
Dynamic Power per Channel	340 W (8 ohms)	225 W (8 ohms)
Dynamic Head Room (NEW IHF)	1.7 dB (8 ohms)	1.7 dB (8 ohms)
Power Bandwidth (Half Rated Power, 0.05% THD)	5 Hz—50 kHz	5 Hz—50 kHz
Damping Factor (NEW IHF) 20 Hz/1 kHz/20 kHz	Greater than 60/ 60/ 60	Greater than 60/ 60/ 60
Input Sensitivity/Impedance (NEW IHF)	2.0 V/ 50 k ohms (rated power) 140 mV/50 k ohms (1 W output)	1.6 V/ 50 k ohms (rated power) 140 mV/50 k ohms (1 W output)
Frequency Response (1 W, NEW IHF)	20—20,000 Hz +0, −0.2 dB 7—150,000 Hz +0, −3 dB	20—20,000 Hz +0, −0.2 dB 7—150,000 Hz +0, −3 dB
Signal-to-Noise Ratio (Input Shorted, Rated Power, IHF A-WTD)	Better than 120 dB	Better than 120 dB
Residual Noise Level (IHF A-WTD)	Less than 25 μV	Less than 30 μV
Total Harmonic Distortion (Rated Power, 20—20,000 Hz)	Less than 0.05 %	Less than 0.05 %
Stereo Separation (Input Shorted) 100 Hz/1 kHz/10 kHz	120/105/90 dB	100/90/70 dB
Output Complement	18 transistors per channel	12 transistors per channel
Output Current Capability	20 A continuous, 90 A peak (per channel)	18 A continuous, 70 A peak (per channel)
Power Supply	700 VA toroidal transformer, 132,000 μF total filter capacitance	470 VA toroidal transformer, 94,000 μF total filter capacitance
Power Source	120, 220, 240 or 110/120/220/240 V AC; 50/60Hz (According to country of sale)	120, 220, 240 or 110/120/220/240 V AC; 50/60Hz (According to country of sale)
Power Consumption	900 W max.	650 W max.
Dimensions*	435(W) × 200(H) × 421(D)mm 17-1/8(W) × 7-7/8(H) × 16-9/16(D) inches	435(W) × 157(H) × 421(D)mm 17-1/8(W) × 6-3/16(H) × 16-9/16(D) inches
Approximate Weight	28.5 kg; 62 lbs., 13 oz.	21.5 kg; 47 lbs., 6 oz.

*: Dimensions do not include protruding parts. Height is the panel height without feet.

- Specifications and design are subject to change for further improvement without notice.
- STASIS manufactured under license from Threshold Corporation.
- STASIS is a trademark of Threshold Corporation.

Nakamichi Corporation/Tokyo Office	Shinjuku Daiichi Seimei Bldg., 2-7-1 Nishishinjuku, Shinjuku-ku, Tokyo 163 Phone: (03) 342-4461 Telex: 2324721 (NAKAM J)
Nakamichi America Corporation	19701 South Vermont Ave., Torrance, CA 90502 Phone: (213) 538-8150
Nakamichi Canada	276 South West, Marine Drive, Vancouver, B.C. V5X 2R4 Phone: (604) 324-7535
Nakamichi GmbH	Praunheimer Landstraße 32, 6000 Frankfurt Main 90 Phone: (069) 7682021
Nakamichi Australia	Unit 10, 21-29 Chester Street, Camperdown, N.S.W. 2050 Phone: (02) 519-3977

0D04876B

O-891201G Printed in Japan